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                 limits for exact sequence match searches and
                 introduction of free HIT display format
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         MAY 28 CAS databases on STN enhanced with NANO super role in
NEWS 15
                 records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching
                 enhanced on STN
```

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4, AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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=> file reg

COST IN U.S. DOLLARS SINCE FILE

ENTRY SESSION 0.66 0.66

TOTAL

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 21 JUN 2009 HIGHEST RN 1159253-26-5 DICTIONARY FILE UPDATES: 21 JUN 2009 HIGHEST RN 1159253-26-5

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=>

Uploading C:\Program Files\Stnexp\Queries\10594105species.str

```
chain nodes :
25 26 27 28
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24
chain bonds :
6-25 10-28 14-27 17-20 25-28 27-28
ring bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 7-8 \quad 7-12 \quad 8-9 \quad 9-10 \quad 10-11 \quad 11-12 \quad 13-14 \quad 13-18
14-15 \quad 15-16 \quad 16-17 \quad 17-18 \quad 19-20 \quad 19-24 \quad 20-21 \quad 21-22 \quad 22-23 \quad 23-24
exact/norm bonds :
6-25 \quad 13-14 \quad 13-18 \quad 14-15 \quad 14-27 \quad 15-16 \quad 16-17 \quad 17-18 \quad 17-20 \quad 25-28 \quad 27-28
exact bonds :
10-28
normalized bonds :
1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 7-8 \quad 7-12 \quad 8-9 \quad 9-10 \quad 10-11 \quad 11-12 \quad 19-20 \quad 19-24
20-21 21-22 22-23 23-24
isolated ring systems :
containing 1 : 7 : 13 : 19 :
```

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:Atom

T.1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

T.1 STR

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L2 88 SEA SSS FUL L1

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SINCE FILE TOTAL SESSION 187.50 ENTRY 186.84

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FILE COVERS 1907 - 22 Jun 2009 VOL 150 ISS 26 FILE LAST UPDATED: 21 Jun 2009 (20090621/ED) REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1103625 CAPLUS

DOCUMENT NUMBER: 143:387060

TITLE: Preparation of piperazine or piperidine derivatives as

serotonin reuptake inhibitors

INVENTOR(S): Pinney, Kevin G.; Miranda, Maria Graciela; Dorsey,

James Michael

PATENT ASSIGNEE(S): Baylor University, USA SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						DATE		APPLICATION NO.					DATE					
	2005094896 2005094896								WO 2005-US10356						20050328				
		CN, GE, LK, NO, SY, BW, AZ,	CO, GH, LR, NZ, TJ, GH, BY,	CR, GM, LS, OM, TM, GM, KG,	CU, HR, LT, PG, TN, KE, KZ,	CZ, HU, LU, PH, TR, LS, MD,	AU, DE, ID, LV, PL, TT, MW, RU, GR,	DK, IL, MA, PT, TZ, MZ, TJ,	DM, IN, MD, RO, UA, NA, TM,	DZ, IS, MG, RU, UG, SD, AT,	EC, JP, MK, SC, US, SL, BE,	EE, KE, MN, SD, UZ, SZ, BG,	EG, KG, MW, SE, VC, TZ, CH,	ES, KP, MX, SG, VN, UG, CY,	FI, KR, MZ, SK, YU, ZM, CZ,	GB, KZ, NA, SL, ZA, ZW, DE,	GD, LC, NI, SM, ZM, AM, DK,	ZW	
EP	1732	MR, 610	NE,	SN,	TD, A2	TG,	BF, AP, 2006	EA, 1220	EP,	OA EP 2	005-	7307	78	ŕ	2	0050	328		
		IS, HR,	IT, LV,	LI, MK,	LT, YU	LU,	CZ, MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	AL,	BA,		
PRIORIT	RIORITY APPLN. INFO.:									US 2007-594105 US 2004-557069P WO 2005-US10356					P 20040326				
GI GI	* *						CASREACT 143:387060; MARPAT 143:387060												

AB Title compds. I [X = F or CF3; Y = (CH2)n; n = 0-1; A = N or C; Ar = aryl] and their pharmaceutically acceptable salts, are prepared and disclosed as serotonin reuptake inhibitors. Thus, e.g., II was prepared by reduction of 1-phenyl-3-(4-phenyl-piperazin-1-yl)-propan-1-ol (preparation given) using sodium borohydride followed by coupling with 4-fluorophenol. The ability of I to inhibit [3H]5-HT uptake was evaluated using liquid scintillation spectroscopy and it was revealed that selected compds. of the invention possessed IC50 values in the range of 1.45 up to 9.56 $\mu \rm M$. I as serotonin reuptake inhibitors should prove useful in the treatment of depression. Pharmaceutical composition comprising I are disclosed.

ΙI

Ι

IT 691872-56-7P 691872-58-9P 691872-60-3P 691872-62-5P 691872-64-7P 691872-66-9P 866548-21-2P 866548-22-3P 866548-24-5P 866548-25-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazine or piperidine derivs. as serotonin reuptake inhibitors)

RN 691872-56-7 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]- (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \\ & \text{CH}_2 - \text{CH} - \text{O} \end{array}$$

RN 691872-58-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-(CA INDEX NAME)

RN 691872-60-3 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

RN 691872-62-5 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \\ & \text{Ph} & \\ & \text{CH}_2-\text{CH}-\text{O} \end{array}$$

● HCl

RN 691872-64-7 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 691872-66-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 866548-21-2 CAPLUS

CN Piperazine, 1-[3-(4-fluorophenoxy)-3-phenylpropyl]-4-phenyl- (CA INDEX NAME)

RN 866548-22-3 CAPLUS

CN Piperazine, 1-[3-(4-fluorophenoxy)-3-phenylpropyl]-4-phenyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 866548-24-5 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-phenyl- (CA INDEX NAME)

866548-25-6 CAPLUS Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-phenyl-, hydrochloride (1:1) (CA INDEX NAME) CN

● HCl

```
ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
T.3
                         2004:170822 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         140:417233
TITLE:
                         Synthesis and biological evaluation of
                         2-(4-fluorophenoxy)-2-phenyl-ethyl piperazines as
                         serotonin-selective reuptake inhibitors with a
                         potentially improved adverse reaction profile
AUTHOR(S):
                         Dorsey, James M.; Miranda, Maria G.; Cozzi, Nicholas
                         V.; Pinney, Kevin G.
CORPORATE SOURCE:
                         Department of Chemistry and Biochemistry and The
                         Center for Drug Discovery, Baylor University, Waco,
                         TX, 76798-7348, USA
                         Bioorganic & Medicinal Chemistry (2004), 12(6),
SOURCE:
                         1483-1491
                         CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER:
                         Elsevier Ltd.
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
OTHER SOURCE(S):
                         CASREACT 140:417233
     Three new 2-(4-fluorophenoxy)-2-phenyl-Et piperazines,
     1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]-piperazine,
     1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-piperazine, and
     1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(3-trifluoromethylphenyl)-
     piperazine, modeled after the potent antidepressant fluoxetine and coupled
     with several functionalized piperazines, have been prepared by chemical
     synthesis as selective serotonin reuptake inhibitors (SSRIs) with a
     potentially improved adverse reaction profile. Typical SSRIs, although
     very effective in the treatment of depression, still face the troublesome
     side effect of sexual dysfunction. A number of pharmacol. agents-notably,
     drugs in the piperazine class-have been used to reverse SSRI-induced
     sexual dysfunction, and evidence for developing an improved SSRI by
     coupling a fluoxetine congener with the pharmacophore of a reversal agent
     holds promise. Preliminary data indicates that the hydrochloride (HCl)
     salts of piperazines exhibit single-site binding at the site of the
     serotonin reuptake transporter (SERT). However, each of the three compds.
     are much less potent than typical SSRIs, showing micromolar (\mu M)
     affinity for the SERT with IC50 values of 1.45 \mu\text{M}, 3.27 \mu\text{M}, and 9.56
     \mu\text{M}, resp. Further biol. evaluation of piperazine compds. is needed
     before definitive conclusions can be made with regard to each compound's
     potential for use as an SSRI-type candidate which is devoid of sexual side
     effects. Nevertheless, the initial findings are quite encouraging, thus
     lending credence to the idea of hybridizing an SSRI congener with that of
     the pharmacophore of an agent known to reverse or treat SSRI-induced
     sexual dysfunction.
     691872-62-5P 691872-64-7P 691872-66-9P
ΤТ
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (synthesis and structure-activity relationship of
        2-(4-fluorophenoxy)-2-Ph-Et piperazines as serotonin-selective reuptake
        inhibitors with a potentially improved adverse reaction profile)
RN
     691872-62-5 CAPLUS
     Piperazine, 1-(3-\text{chlorophenyl})-4-[2-(4-\text{fluorophenoxy})-2-\text{phenylethyl}]-
```

<12/04/2007> Erich Leese

hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \\ & &$$

● HCl

RN 691872-64-7 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 691872-66-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} & \\ & \text{Ph} & \\ & \text{CH}_2\text{-CH-O} & \\ \end{array}$$

● HCl

IT 691872-56-7P 691872-58-9P 691872-60-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and structure-activity relationship of

2-(4-fluorophenoxy)-2-Ph-Et piperazines as serotonin-selective reuptake inhibitors with a potentially improved adverse reaction profile)

RN 691872-56-7 CAPLUS

CN Piperazine, 1-(3-chlorophenyl)-4-[2-(4-fluorophenoxy)-2-phenylethyl]- (CA INDEX NAME)

RN 691872-58-9 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-(2-methoxyphenyl)-(CA INDEX NAME)

RN 691872-60-3 CAPLUS

CN Piperazine, 1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

REFERENCE COUNT:

14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 15:50:28 ON 22 JUN 2009)

FILE 'REGISTRY' ENTERED AT 15:52:03 ON 22 JUN 2009

L1 STRUCTURE UPLOADED

L2 88 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:53:50 ON 22 JUN 2009

L3 2 S L2 FULL

=> log y

COST IN U.S. DOLLARS
SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST

SINCE FILE TOTAL 20.28 207.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE
ENTRY
SESSION

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